

IN THE CLAIMS

1. (Previously presented) A multi-chip package comprising:

at least two semiconductor chips vertically mounted on a substrate and encapsulated with a mold resin; and

a soft element located between at least one of the at least two semiconductor chips and the mold resin, the soft element being more flexible than the mold resin, the soft element being adapted to relieve stress in the joinder between the at least one semiconductor chips and the encapsulating mold resin, the soft element including an elastomer or an epoxy resin without a filler.

2. (Original) The multi-chip package of claim 1, wherein the soft element contacts substantially the entire surface of at least one side of the at least one of the at least two semiconductor chips.

3. (Original) The multi-chip package of claim 1, wherein the soft element contacts a portion of at least one side of the at least one of the at least two semiconductor chips.

4. (Original) The multi-chip package of claim 1, wherein the soft element contacts substantially the entire upper surface of an uppermost chip of the at least two semiconductor chips.

5. (Original) The multi-chip package of claim 1, wherein the soft element contacts a portion of an upper surface of an uppermost chip of the at least two semiconductor chips.

6. (Original) The multi-chip package of claim 1, further comprising an adhesive applied for adhesion between the substrate and the at least two semiconductor chips, wherein the soft element is configured to increase vertical mobility of the semiconductor chips against a load of the adhesive applied to the semiconductor chips upon cooling.

7. (Original) The multi-chip package of claim 1, wherein the soft element comprises one selected from the group consisting of an elastomer and an epoxy resin.

8. (Original) The multi-chip package of claim 1, the package further comprising: solder balls as terminals for connecting the package to an external circuit.

9. (Original) The multi-chip package of claim 1, wherein the substrate comprises one selected from the group consisting of a printed circuit board (PCB) substrate and a polyimide substrate.

10. (Previously presented) A device comprising:
at least two semiconductor chips stacked on a substrate;
a soft element formed on a surface of at least one of the at least two semiconductor chips, but not on surfaces between the at least two semiconductor chips; and
an encapsulant covering the at least two semiconductor chips and the soft element,
the soft element being more flexible than the encapsulant and being configured to reduce the constrictive force of the encapsulant on the surface, the soft element including an elastomer or an epoxy resin without a filler.

11. (Original) The device of claim 10, wherein the surface comprises substantially the entire surface that is contained by a single plane.

12. (Original) The device of claim 10, wherein the surface comprises a part of substantially the entire surface that is contained by a single plane.

13. (Original) The device of claim 10, wherein the encapsulant comprises one selected from the group consisting of an elastomer and an epoxy resin.

14. (Previously presented) A method of manufacturing a multi-chip package, comprising:

vertically stacking at least two semiconductor chips on a substrate, the at least two semiconductor chips having upper, lower, and side surfaces;

bonding a bond pad on at least one of the at least two semiconductor chips to a bond finger on the substrate with a bonding wire;

forming a soft element including an elastomer or an epoxy resin without a filler on at least one side surface of at least one of the at least two semiconductor chips; and

encapsulating the at least two semiconductor chips and the soft element using a mold resin.

15. (Previously presented) The method of claim 14, wherein forming the soft element comprises:

forming the soft element on substantially the entire surface of the at least one side surface.

16. (Previously presented) The method of claim 14, wherein forming the soft element comprises:

forming the soft element on a portion of the at least one side surface.

17. (Original) The method of claim 14, wherein forming the soft element comprises:
forming the soft element on substantially the entire upper surface of an uppermost one of the at least two semiconductor chips.

18. (Original) The method of claim 14, wherein forming the soft element comprises:
forming the soft element on a portion of an upper surface of an uppermost one of the at least two semiconductor chips.

19. (Original) The method of claim 14, wherein forming the soft element comprises:
forming the soft element to cover the bonding wire, to cover a contact area between the bonding wire and the bond pad, and to cover a contact area between the bonding wire and the bond finger.

20. (Cancelled)

21. (Previously presented) The package of claim 1, wherein the soft element is disposed between at least one of the semiconductor chips and the mold resin and not between the semiconductor chips.

22. (Cancelled)

23. (Previously presented) The package of claim 1, wherein side surfaces of the at least two semiconductor chips are coplanar and the soft element covers substantially the entire side surfaces of the at least two semiconductor chips.